

# Statewide Multimodal Networks

## **Introduction**

In Virginia, long-range transportation planning is carried out by the state, metropolitan planning organizations (MPOs), planning district commissions (PDCs), and local service providers. One of the roles of VTrans2025 is to provide continuity for planning among the various modal agencies and planning jurisdictions. The perspective of the state may differ from that of regional planning bodies in that the state is concerned with transportation throughout the Commonwealth, whereas MPOs and PDCs appropriately focus on more regional interests. The state must also ensure that regions are connected and that inter-state needs are addressed. The two levels of transportation decision-making must ultimately arrive at a plan that addresses each region and the interests of the state.

The long-range plans of the many planning partners, including MPOs, PDCs, and modal agencies, were the foundation for the identification of the following Statewide Multimodal Networks. The intent of the Statewide Multimodal Networks is not to replace regional plans, but to “connect the dots” among regional and modal agency plans. Statewide Multimodal Networks are likely to traverse the many regions of Virginia and cross jurisdictional lines. The character of individual corridors changes across the state as they cross urban and rural areas and solutions to transportation deficiencies should reflect these differences.

The following Statewide Multimodal Networks are not a roster of specific transportation projects. Rather, they are major thoroughfares for passenger and goods movement within and through the Commonwealth. Projects on individual networks that ultimately are selected for funding should be consistent with the network’s function within the overall multimodal transportation system. Further, while the state does have an interest in local transportation facilities and services (e.g., roads, transit, airports, etc.), planning for these systems occurs at the regional level. Advancement of projects that improve connections between the modes and improve the ability of the modes to provide access and mobility benefits the transportation system at the local, regional, and state levels. The following Statewide Multimodal Networks and criteria were identified through a cooperative effort of state and regional planning partners.

## **DRAFT Criteria**

1. Involves multiple modes (i.e., highway, rail, inter-regional transit, airport, port, or freight) and extends beyond an individual region
2. Connects regions/states/major activity centers
3. Provides a high level/volume of transport
  - a. Class I rail
  - b. Commercial and/or reliever airports
  - c. Inter-regional public transportation and stations
  - d. Interstate/NHS/Primary facility
  - e. Major shipping channel
  - f. Major port
  - g. Gateway of national or international significance
  - h. Major freight corridor
4. Provides a unique statewide function and/or addresses statewide goals
  - a. Evacuation route or critical redundancy
  - b. Security (military access, STRAHNET, STRACNET)
  - c. Tourism
  - d. Truck route
  - e. State bicycle route or inter-regional trail
  - f. Economic development

*NOTE: Statewide Multimodal Networks must meet all four criteria.*

## **DRAFT Statewide Multimodal Networks**

### **A. Southwest to Hampton Roads**

- Route 58
- Chesapeake Airport
- Hampton Roads Airport
- Port of Virginia
- Norfolk Southern

This multimodal network traverses the entire southern border of the state, crossing over 40 jurisdictions and 31 percent of the state's population. Route 58 is Virginia's longest roadway stretching from the Atlantic Ocean to the southwest tip of Virginia and represents 10 percent of all traffic on the state's primary routes. The network provides access to economic opportunities in this largely rural portion of the state and is an important corridor for freight movement, handling 11 percent of the state's heavy truck traffic on primary routes. It provides access to the Port of Virginia's marine terminals in Hampton Roads and interchanges with north-south Interstates 95, 85, and 81. The network also provides access to numerous general aviation airports providing travel and shipping alternatives to businesses and residents across the southern tier of the state. Norfolk Southern operates freight rail service across the southern portion of the state linking Southwest Virginia to the Virginia Port Authority's marine terminals in Hampton Roads.

### **B. Roanoke to North Carolina/Martinsville and Points South**

- Interstate 73
- Route 220
- Roanoke Airport
- New Airport in Franklin
- Norfolk Southern

This network serves as an outlet from Southwest Virginia to the northern regions of Washington DC, Baltimore, and beyond by connecting to Interstates 81 and 85 as well as commercial air carrier service at the Roanoke Airport. The network provides a connection to Routes 460 and 58, which provide access across the entire southern tier of the state. It serves passenger trips traveling through the Commonwealth and provides an alternative for freight movement. The new Interstate 73 will mostly parallel existing Route 220, which currently handles around 20 percent trucks in many places.

### **C. North Carolina/Danville and Points South to Northern Virginia and Points North**

- Route 29
- Lynchburg Airport
- Manassas Airport
- Warrenton Airport
- Charlottesville Airport

- Norfolk Southern
- Amtrak Crescent Route

This network stretches from the North Carolina border near Danville to Warrenton and is part of the larger high priority corridor identified by Congress that stretches from Greensboro, North Carolina to the District of Columbia. It crosses 21 jurisdictions with 31 percent of the state's population. This corridor serves multiple transportation functions, including interregional and interstate mobility as well as local community access. Route 29 is the only north-south four-lane divided non-interstate highway in central Virginia and it connects centers of commerce in southern and central regions of the state to those in Northern Virginia. This corridor carries 10 percent of all truck traffic on primary routes in the state. Access to commercial air carrier service in this corridor is available in Charlottesville and Lynchburg, as well as Greensboro, North Carolina. Norfolk Southern's rail lines parallel Route 29 and provide freight rail service. Amtrak passenger rail service also operates along Norfolk Southern rail lines in this corridor.

#### D. North Carolina to West Virginia

- Interstate 77
- Route 52
- Route 100 from Route 460 to Interstate 81

This network provides an important link for residents and businesses in Southwest Virginia. It provides interstate service via Interstate 77 with connections to Interstate 81, Route 58, Route 460, and the future Coalfields Expressway. Two major inter-regional routes 100 and 52 parallel the interstate in Virginia. Called the "Great Lakes to Florida Route," the corridor, in conjunction with Interstates 79, 26, and 95, provides a north-south interstate highway corridor from Florida to Ohio and Pennsylvania. For Virginia, Interstate 77 in conjunction with Interstate 81 provides interstate highway service from Bristol to Charleston, West Virginia and north, and from Roanoke to Charlotte, North Carolina and south. The interstate carries as much as 26 percent heavy trucks along some Virginia segments and is an important corridor for freight movement.

#### E. Tennessee/Bristol and Points Southwest to West Virginia/Winchester and Points North

- Interstate 81
- Route 11
- Roanoke Airport
- Shenandoah Valley Airport
- Virginia Inland Port
- Blue Ridge Parkway
- Norfolk Southern
- Winchester and Western
- Interstate Bicycle Route 76

This corridor follows the Appalachian Mountains, passing through twenty-five Virginia counties with a total of about 13 percent of the state's population. The network provides an interstate link from Virginia and other mid-southern states to northeastern economic centers such as Harrisburg, Pennsylvania and Syracuse, New York. Interstate 81 contributes nearly 20 percent of all vehicle miles traveled on Virginia's interstates. It is a major national and international truck freight route, representing nearly 40 percent of the heavy truck traffic on interstates in Virginia. The network includes connections to interstates 64, 66, and 77 as well as commercial air carrier service at the Roanoke and Shenandoah Valley Airports. Also included in the network, the Virginia Inland Port in Front Royal at the intersection of Interstates 81 and 66 extends the reach of the Virginia Port Authority's marine terminals 220 miles inland to the Shenandoah Valley and serves as an intermodal collection point for cargo from West Virginia, Ohio, Pennsylvania, Northern Virginia, and elsewhere. Class I railroad Norfolk Southern operates a rail line that parallels Interstate 81 throughout Virginia, providing connections to 20 ports along the Atlantic and Gulf Coasts and connecting with all the major North American rail carriers.

F. Kentucky and Points West to Hampton Roads

- Route 460
- Coalfields Expressway
- Richmond Airport
- Roanoke Airport
- Lynchburg Airport
- Chesterfield Airport
- Hanover Airport
- Newport News Airport
- Norfolk Airport
- Hampton Roads Airport
- Chesapeake Airport
- James River Navigational Channels
- Port of Virginia
- Heartland Rail Corridor
- Norfolk Southern

This network traverses 28 Virginia jurisdictions home to 20 percent of the state's population. It is a major corridor for passenger and goods movement from Southwest Virginia to the "Urban Crescent." The network provides a connection via Route 460 to Interstates 77, 81, 295, 664, and 264 as well as commercial air carrier service in Roanoke, Lynchburg, Richmond, and Norfolk. These four airports account for 17 percent of the state's commercial enplanements. Route 460 is a major thoroughfare for freight movement, representing 12 percent of the state's heavy truck vehicle miles traveled on primary roads. The Heartland Rail Freight Corridor, which stretches from Norfolk to Chicago, is also within this multimodal corridor. This important initiative to clear height restrictions for double-stacked containers would shave over 200 miles and one and a half days off the current route for freight from the East Coast to Chicago. Norfolk Southern provides rail service along this corridor and provides a

connection to the Virginia Port Authority's marine terminals in Hampton Roads. The new Coalfields Expressway will not only provide a modern, safe, and efficient highway through the Coalfields region of southwestern Virginia, but the new road is expected to bring an increase in commerce and tourism to the entire multi-state Appalachian region. Designated as part of the national highway system, the new road will link Interstates 64 and 77 in West Virginia with Route 23 in Virginia, which links to interstates in Kentucky and Tennessee.

G. West Virginia/Winchester and Points North to Hampton Roads and Points South

- Route 17
- Warrenton Fauquier Airport
- Stafford Airport
- Newport News Airport
- Rappahannock River Navigational Channels

This is an important network for the north-south movement of freight. Route 17 carries more than 10 percent trucks along many segments and 6 percent of the truck traffic on primary roads in Virginia. Connecting Virginia's Middle Peninsula to Hampton Roads in the south and Winchester in the north, the network crosses 17 Virginia cities and counties home to 17 percent of the state's population. It provides connections to Interstates 64, 95, 66, and 81 and to commercial air service at Newport News Airport.

H. North Carolina and Points South to Maryland and Points North via the Eastern Shore

- Route 13
- Route 168
- Chesapeake Airport
- Hampton Roads Airport
- Chesapeake Bay Navigational Channels/Inland Waterway
- Norfolk Southern
- CSX Transportation
- Eastern Shore Railroad and Barge
- Chesapeake and Albemarle Railroad

Route 13 is the principal north-south corridor linking the Eastern Shore of Virginia with the mainland of Virginia to the south and to the northeast through the State of Maryland. The corridor provides access for 16 percent of the state's population and has a high level of through traffic. For many on Virginia's Eastern Shore, Route 13 is considered the "main street" and economic lifeline. Route 168 is an important link for tourists traveling from Virginia into North Carolina and the Outer Banks. The Eastern Shore and Chesapeake and Albemarle Railroads provide freight rail service to Virginia's Eastern Shore and into Maryland and provide connections to Norfolk Southern and CSX in Hampton Roads. The Eastern Shore Railroad can handle tri-level enclosed auto racks, high-roof 60-foot boxcars, and over-dimension shipments, providing an alternative to other clearance restricted lines.

I. West Virginia/Covington and Points West to Hampton Roads

- Interstate 64
- Interstate 64 HOV System in Hampton Roads
- Interstate 664
- Interstate 564
- Interstate 264
- Route 250
- Route 460 (Richmond/Petersburg to Hampton Roads)
- Richmond Airport
- Charlottesville Airport
- Newport News Airport
- Norfolk Airport
- Port of Virginia
- Port of Richmond
- Elizabeth River Navigational Channels
- James River Navigational Channels
- York River Navigational Channels
- CSX Transportation
- Amtrak Cardinal and Regional Routes
- Buckingham Branch Line
- Capital to Capital Multi-Use Trail
- Interstate Bicycle Route 76

This network is part of a larger east-west corridor for passenger and goods movement that connects the St. Louis metropolitan area to Hampton Roads. It passes through 32 Virginia jurisdictions home to 34 percent of the state's population. The corridor connects several tourist destinations, including the state capital in Richmond, the colonial capital in Williamsburg, historic Jamestown, and the oceanfront in Virginia Beach. The network also serves the US Naval Base in Norfolk, the US Navy Amphibious Base and Oceana Naval Air Station in Virginia Beach, Langley Air Force Base in Hampton, Fort Eustis in Newport News, and Camp Peary and the US Naval Weapons Station in James City County. The corridor traverses the James River at the mouth of the Chesapeake Bay, both of which serve as significant shipping channels, via the Hampton Roads Bridge Tunnel. The network's commercial airports include the Richmond, Charlottesville, Newport News, and Norfolk Airports and are responsible for 16 percent of all commercial enplanements in the state. The Virginia Port Authority's marine terminals are included in this network as well as the freight rail service provided by CSX, which parallels Interstate 64 in the corridor from Richmond to Hampton. Amtrak passenger rail service also operates along these same rail lines. Buckingham Branch Line provides rail service along the Interstate 64 corridor from Richmond west. Amtrak passenger rail service also operates along these lines west to Charleston and continues north through Culpeper to Washington DC along Norfolk Southern tracks. Amtrak also provides passenger rail service from Richmond east to Newport News. Interstate 64

contributes 27 percent of all interstate traffic in Virginia and 17 percent of all heavy truck traffic on interstates.

J. North Carolina/Emporia/South Hill and Points South to Northern Virginia and Points North

- Interstate 95
- Interstate 95 HOV System in Northern Virginia
- Interstate 85
- Interstate 295
- Interstate 495
- Route 1
- Route 301
- Chesterfield Airport
- Richmond Airport
- Hanover Airport
- Stafford Airport
- Manassas Airport
- Reagan National Airport
- Virginia Railway Express
- Metro Rail and Bus (inter-regional between Northern Virginia and Washington DC)
- CSX Transportation
- Amtrak Carolinian and Auto Train Routes
- Virginia Railway Express Manassas and Fredericksburg Lines
- Norfolk Southern
- Interstate Bicycle Route 1
- Potomac River Navigational Channels
- Port of Alexandria
- Port of Richmond

This corridor stretches from North Carolina to Washington DC and is part of a major north-south artery for the movement of people and goods throughout the eastern US. It crosses 27 Virginia jurisdictions and 41 percent of the state's population. Interstate 95, called the "Main Street of the East Coast" runs from Florida to the Canadian border with Maine. It contributes 39 percent of all interstate traffic in Virginia. This multimodal network links major tourist attractions, including historic Fredericksburg, the nation's capital, and the East Coast's largest shopping mall. It is of strategic military importance due to its proximity to the Pentagon and several military bases, including Fort A.P. Hill, Quantico, and Fort Belvoir. Access to commercial air carrier service is available at Richmond and Reagan National Airports, which are responsible for 45 percent of commercial enplanements in the state, and the Stafford and Manassas Airports operate as reliever airports for the busy nearby Dulles Airport. The character of this corridor changes significantly from north to south, providing through movement as well as mobility within the Richmond to Northern Virginia portion of the "Urban Crescent" in the north and serving primarily through movement



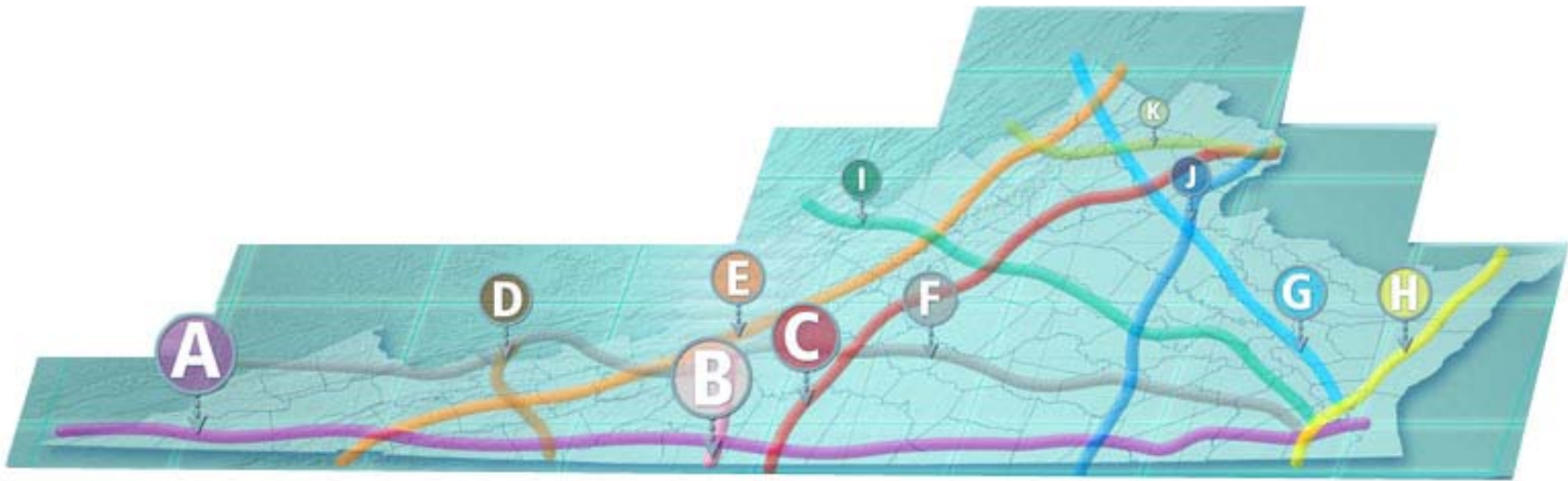
of passenger and goods throughout the Eastern Seaboard from Richmond south. Class I Railroad CSX Transportation operates rail lines that closely parallel Interstate 95 throughout the corridor. Amtrak passenger rail service operates along these tracks as well as Norfolk Southern tracks out to Manassas. Virginia Railway Express provides commuter rail service into Washington DC from Fredericksburg on CSX lines and from Manassas on Norfolk Southern lines. Interstate 95 is important for freight movement up and down the East Coast, carrying a third of the heavy truck interstate traffic in Virginia.

K. West Virginia/Middletown and Points West to Northern Virginia and Washington DC

- Interstate 66
- Interstate 66 HOV System in Northern Virginia
- Warrenton Airport
- Manassas Airport
- Leesburg Airport
- Reagan National Airport
- Dulles Airport
- Virginia Inland Port
- Dulles Toll Road
- Metro Rail and Bus
- Norfolk Southern
- Amtrak Crescent Route (Washington DC to Manassas)
- Virginia Railway Express Manassas Line
- Washington and Old Dominion (W&OD) Multi-Use Trail

This network links Washington DC with the Virginia Inland Port and Interstate 81 in Front Royal, providing mobility for 24 percent of the state's population. The corridor serves commuter interests from the Capitol to Northern Virginia and trucks are prohibited east of the Capital Beltway (Interstate 495). Other locations carry as much as 22 percent trucks. Metro rail runs through the median of much of the interstate and High Occupancy Vehicle lanes encourage carpools and transit use throughout the corridor. Norfolk Southern provides freight rail service paralleling Interstate 66 and a connection to the Virginia Inland Port in Front Royal. Passenger rail service operated by Amtrak and commuter rail service operated by the Virginia Railway Express also share these tracks. Commercial air service is available at Dulles and Reagan National Airports, which are responsible for 82 percent of commercial enplanements in Virginia.

## Statewide Multimodal Networks



- A. Southwest to Hampton Roads
- B. Roanoke to North Carolina
- C. Danville to Northern Virginia
- D. North Carolina to West Virginia
- E. Bristol to Winchester
- F. Kentucky to Hampton Roads
- G. Winchester to Hampton Roads
- H. North Carolina to Maryland via the Eastern Shore
- I. West Virginia to Hampton Roads
- J. Emporia/South Hill to Northern Virginia
- K. West Virginia to Washington DC

### Summary of Multimodal Indicators for Statewide Multimodal Networks

Network	Percent of State's Population <sup>1</sup>	Percent of State's Commercial Enplanements <sup>2</sup>	Percent of State's VMT for Road Type <sup>3</sup>	Percent of State's Heavy Truck VMT for Road Type <sup>4</sup>
A	31%	0%	9%	11%
B	4%	2%	3%	5%
C	31%	1%	8%	10%
D	1%	0%	3%	4%
E	13%	2%	19%	39%
F	20%	17%	8%	12%
G	17%	1%	6%	6%
H	16%	0%	6%	6%
I	34%	16%	27%	17%
J	41%	45%	39%	33%
K	24%	82%	7%	5%

1. Network population figures represent the sum of the population for the jurisdictions through which the network passes compared to total state population. Data is based on the 2001 Census.
2. Network enplanement figures represent the sum of commercial aircraft boardings at all commercial airports within the network. Data is from the Department of Aviation for 2001.
3. Vehicle miles traveled (VMT) figures represent traffic on the major interstate(s) or primary route within the network compared to the state total for the applicable road type (interstate or primary). Data is for 2003 and comes from the Statewide Planning System.
4. Heavy truck vehicle miles traveled (VMT) figures represent heavy truck traffic on the major interstate(s) or primary route within the network compared to the state total for the applicable road type (interstate or primary). Data is for 2003 and comes from the Statewide Planning System.